

REMARKS

By the foregoing amendment, the claims have been amended to replace “crystalline inorganic filler” with “wollastonite treated with amino-silane” and claims rendered duplicative or redundant thereby have been canceled. Support for the amendment can be found throughout the specification, and particularly, for example, in Example 5, which uses “MF-2” as the crystalline inorganic filler, where MF-2 is defined at page 29, lines 21-22 of the original specification.

Claim Objections and Claim Rejections under 35 U.S.C. § 112, second paragraph

The Office objects to Claim 4 for allegedly failing to further limit the subject matter of the previous claim and also rejects claim 4 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite with respect to the amount of epoxy resin.

In response, without acquiescing to or agreeing with the basis for the rejection (as set forth in the prior response), Applicant cancels claim 4 solely in an effort to advance prosecution.

Claim Rejections under 35 U.S.C. § 103(a)

The Office raises the following obviousness rejections:

- (a) the Action rejects claims 1, 3, 4, 7-11, 14, 15, 19, and 20 under 35 U.S.C. § 103(a) as being obvious over Maekawa et al. (WO 2002/090435) in view of Nakano et al. (U.S. Patent No. 5,302,645) and Kudou et al. (US 2002/0123570);
- (b) the Action rejects claims 4, 12, and 13 under 35 U.S.C. § 103(a) as being obvious over Maekawa et al. in view of Nakano et al., Kudou et al., and Largman et al. (US 4,403,052), with evidence provided by MatWeb(ENC 1299).

By the foregoing amendment, Applicant amends the claims to replace “crystalline inorganic filler” with “wollastonite treated with amino-silane.” Applicant notes that the use of wollastonite treated with amino-silane provides unexpectedly good results when used in combination with other features of the presently claimed invention. These results can be observed by comparing Example 1 and Example 5 in the present specification.

Example 1 resulted in desirable appearance, flexural modulus, and surface hardness, as did Example 5, but the weight change at immersion in an alkaline washing solution of Example 1 was unexpectedly larger than that of Example 5. Note that chemical resistance is an extremely important aspect of the molded articles of the present invention because of their use in building components that are in contact with water, as well as with alkaline cleaning solutions.

Applicant notes for clarity that the better mechanical properties of Example 5 as compared to Example 1 appear to result from the use of polycarbonate resin (A2) – a feature that is recited in present claim 1. Thus, because Example 5 includes an A2 component, which is not present in Example 1, to demonstrate that the unexpectedly good result is based on the use of wollastonite treated with amino-silane, Applicant has essentially reproduced the composition of Example 5 from the present specification, replacing the wollastonite treated with amino-silane with a wollastonite treated with epoxy-silane (“MF-1”). The results are shown in the attached Declaration, which is submitted pursuant to 37 C.F.R. § 1.132.

From the attached Declaration, one can see that the weight change of the composition that includes the wollastonite treated with epoxy-silane is larger than that of the composition including the wollastonite treated with amino-silane (of Example 5 of the present specification), while the remaining features of flexural modulus, appearance, and surface hardness are the same. This highly desired performance difference was unexpected, and Applicant submits, demonstrates the nonobviousness of the present invention over the cited art.

In this regard, Applicant notes that Maekawa (U.S. Publication No. 2004/0147635) does not teach the use of wollastonite treated with amino-silane. Example 7 of Maekawa discloses the use of wollastonite, but the wollastonite was not treated with amino-silane. As shown by the attached Declaration, wollastonite treated with amino-silane provides unexpectedly good results as compared to wollastonite treated with epoxy-silane, and thus, not all wollastonites perform the same. Moreover, there is nothing in Maekawa to suggest any reason for chemical modification of the wollastonite, let alone modification of the wollastonite to result in wollastonite treated with amino-silane. Thus, Applicant submits that Maekawa fails to teach or suggest the presently claimed invention.

Nakano et al. (U.S. Patent No. 5,302,645) fails to remedy the deficiencies of Maekawa. Nakano et al. uses only glass fiber as the inorganic filler in its examples. Thus, wollastonite is not used at all. Still further, Nakano et al. does not disclose any treatment of the glass fiber as an inorganic filler. Thus, Nakano et al. fails to remedy the deficiencies of Maekawa and separately to teach or suggest the present invention.

Kudou et al. (U.S. Publication No. 2002/0123570) describes acicular and granular wollastonite and also notes in paragraph [0068] that “[a]ny of surface-treated and surface-untreated fillers can be used for the inorganic fillers, but surface-treated fillers are sometimes preferable from the viewpoint of surface flatness and mechanical properties of molded articles.” However, Kudou et al. does not teach or suggest any specific fillers that should be treated, does not specifically suggest treatment of wollastonite, and certainly does not suggest wollastonite treated with amino-silane. In fact, Example 32 of Kudou et al. used granular wollastonite that was not subjected to any treatment. As noted above, the attached Declaration provides evidence that wollastonite treated with amino-silane provides unexpectedly good results, which is further evidence of the nonobviousness of the present invention. In view of these points, Applicant submits that Kudou et al. fails to remedy the deficiencies of Maekawa and separately to teach or suggest the presently claimed invention.

Largman et al. (U.S. Patent No. 4,403,052) discloses the use of glass fibers and optional treatments. However, Largman et al. does not disclose the use of wollastonite, or the use of treated wollastonite, or the use of wollastonite treated with amino-silane. Thus, Largman et al. fails to remedy the deficiencies of Maekawa and fails separately to teach or suggest the presently claimed invention.

In view of the foregoing remarks and amendments, Applicant respectfully submits that the cited art, taken in any proper combination, fails to render obvious the presently claimed invention. Applicant respectfully requests withdrawal of the obviousness rejections.

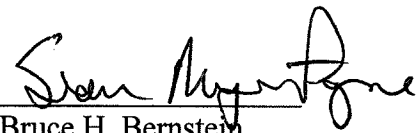
CONCLUSION

In view of the foregoing, it is believed that all of the claims in this application are in condition for allowance, which action is respectfully requested. If any issues yet remain which can

be resolved by a telephone conference, the Examiner is respectfully invited to telephone the undersigned at the telephone number below.

Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,
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Enclosure: Declaration

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